

Federal Aviation Administration		Invitation To Award for Supplies or Services		Page 1 of 1	
Date of Award: 11-JUL-2002		Contract Number (if any): DTFA0202D12127		Award No. (if any):	
Date of Revision: 03-SEP-2002				Revision No. 2	
IMPORTANT: Mark all package(s), invoice(s), and correspondence with contract and/or order/award numbers.					
Contractor (Name, Address, and Zip Code): METI INC 8600 BOEING DRIVE EL PASO, TX 79925			Mail Invoice To (Name, Address, and Zip Code): FAA, MM Aero Center TIN 73-0588975 Financial Services AMZ-110 PO Box 25710 Oklahoma City, OK 73125-4913 405/954-4716		
Contact Point/Phone No: RENARD JOHNSON 915-772-4975			Issuing Office (Address Correspondence To): 6973H4 FAA AERO CENTER AMQ-200 NAS, AUTOMATION & FAC ACQ DIV. MPB, R312 PO BOX 25082 M OKLAHOMA CITY, OK 731250082		
F.O.B. Point: N/A Ship Via: N/A Discount Terms: Due in 30					
PURCHASER NAME AND PHONE NO: Paul J Braid 405-954-7869			ESTIMATED VALUE: \$23,630,662.00 FROM: \$23,630,662.00 ESTIMATED VALUE IS CHANGED BY: \$0.00 FUNDED AMOUNT: \$46,637,596.94		
IMPORTANT: Contractor <input checked="" type="checkbox"/> is, <input type="checkbox"/> is not required to sign this document and return <u>3</u> copies to the issuing office.					OMB 2120-0595
NAME AND TITLE OF PERSON AUTHORIZED TO SIGN: BY: Renard U. Johnson President/CEO DATE SIGNED February 14, 2003			UNITED STATES OF AMERICA NAME OF CONTRACTING OFFICER: BY: Paul J Braid DATE SIGNED: 2/19/03		
<p>Note to Supplier: P00002 to add program analyst position and staffing levels "D" and "E".</p> <p>Note to Vendor First: This is modification P00002 (the modification) to contract DTFA-02-02-D-12127 (the contract) entered into between Management and Engineering Technologies International (METI) (the contractor), and the Federal Aviation Administration (FAA) (the Government), together known as the Parties. It is entered into under the authority of the Parties to enter into bilateral modifications (supplemental agreements) to reflect an agreement of the Parties to modify the terms of the contract. Specifically, this supplemental agreement establishes additional staffing levels identified as "D" and "E" in the contract's schedule, section B, to be used in the event that the level of effort, as ordered by the Government under the contract, exceeds the estimates contained within the previously existing staffing levels. It is effective August 10, 2002.</p> <p>Second: Supplies and services to be furnished under this contract shall be ordered by issuance of delivery or task orders in accord with clause 3.2.4-16 Ordering (October 1996) and all other applicable clauses, terms and conditions of the contract, including this modification. Staffing levels "D" and "E", established herein, will be ordered by delivery or task orders if and when the level of effort required under this contract becomes the Government's requirement and is funded accordingly.</p> <p>Third: A new labor category, that of Program Analyst, also is established by this modification to the contract. If and when the Government requires services using this labor category they shall be ordered in accord with the applicable clauses, terms and conditions of the contract, including this modification.</p> <p>Fourth: Attached hereto and incorporated into the contract are the following documents: a. Performance Work Statement revised November 11, 2002, original March 18, 2002, Engineering and Technical Support, AOS-200, 24 pages in length including the title page, as a full and complete replacement to the Performance Work Statement previously a part of the contract. b. Pages 2, 3 and 4 of the contract's schedule, section B, modification P00002, as a full and complete replacement for pages 2, 3, 4 and 5 of the contract, previously the schedule section B.</p> <p>Fifth: Except as provided herein, all terms and conditions of the contract, as heretofore changed, remain unchanged and in full force and effect.</p>					

PART I- SECTION BSUPPLIES OR SERVICES AND PRICE/COST

B.1(a) The Contractor shall provide the necessary personnel, facilities and equipment (except as furnished by the FAA), materials (both direct and indirect), and related services, including travel and all support expenses, to perform software and technical support services for the National Airway Systems Engineering Division (AOS-200) in accordance with the terms and conditions, provisions, and attachments of this contract.

In accordance with the terms and conditions, provisions, and attachments of this contract					TOTAL ESTIMATED	
CLIN	SUPPLIES/SERVICES	Quantity	Unit	Unit Price	Amount	
0000	Supplies/Services TRANSITION: All Contractor efforts associated with transition. (Reference clauses F.1 and H.12) Firm-Fixed Price	1	JOB	XXXX	0	
0001	Engineering Services and Support IAW Attachment 1, "Engineering Services and Support". (See H.1 for definitions of Staffing Levels A, B, and C).					
		(A) ESTIMATED	(B) O/H	(C) NTE G&A	(D) FEE	(E) TOTAL (A).-
0001A	BASIC CONTRACT YEAR (1st Year)					
	Staffing Level "A"	\$ 7,157,125				\$ 10,411,911
	Staffing Level "B"	\$10,019,975				\$ 14,720,501
	Staffing Level "C"	\$12,882,825				\$ 18,881,122
	Staffing Level "D"	\$15,745,675				\$ 23,130,843
	Staffing Level "E"	\$18,608,525				\$ 27,336,451
0001B	OPTION I (2nd Year)					
	Staffing Level "A"	\$ 7,622,338				\$ 11,127,955
	Staffing Level "B"	\$10,671,273				\$ 15,645,584
	Staffing Level "C"	\$13,720,209				\$ 20,077,409
	Staffing Level "D"	\$16,769,142				\$ 24,583,726
	Staffing Level "E"	\$19,818,077				\$ 29,053,495
0001C	OPTION II (3rd Year)					
	Staffing Level "A"	\$ 8,117,790				\$ 11,863,499
	Staffing Level "B"	\$11,364,906				\$ 16,635,261
	Staffing Level "C"	\$14,612,022				\$ 21,370,095
	Staffing Level "D"	\$17,859,138				\$ 26,144,023
	Staffing Level "E"	\$21,106,254				\$ 30,897,482
0001D	OPTION III (4th Year)					
	Staffing Level "A"	\$ 8,645,446				\$ 12,632,742
	Staffing Level "B"	\$12,103,625				\$ 17,715,246
	Staffing Level "C"	\$15,561,804				\$ 22,742,857
	Staffing Level "D"	\$19,019,981				\$ 27,834,113
	Staffing Level "E"	\$22,478,160				\$ 32,894,861
0001E	OPTION IV (5th Year)					
	Staffing Level "A"	\$ 9,207,400				\$ 13,439,208
	Staffing Level "B"	\$12,890,361				\$ 18,833,903
	Staffing Level "C"	\$16,573,321				\$ 24,210,378
	Staffing Level "D"	\$20,256,281				\$ 29,601,804
	Staffing Level "E"	\$23,939,240				\$ 34,983,948
Column Notes: (A)--Annual estimated direct labor costs for each staffing level					"A" Total	\$ 59,475,315
(B)--Direct labor overhead (O/H) rate to be applied to corresponding "(A)" estimated cost					"B" Total	\$ 83,550,495
(C)--Not-in-exceed (NTE) G&A rate to be applied to resultant "(A)" and "(B)" total estimated					"C" Total	\$ 107,281,861
(D)--Fee rate (inclusive of base and award fees) to be applied to resultant "(A)", "(B)" and "(C)" Total					"D" Total	\$ 131,294,509
(E)--Total estimated dollar amount derived from "(A)", "(B)", "(C)", and "(D)"					"E" Total	\$ 155,166,237

SECTION B (continued)

B.1(a) (continued)

CLIN	SUPPLIES/SERVICES	TOTAL ESTIMATED PRICE
0002	Other Direct Costs (ODC) (See "ODC" definition at H.2)	ESTIMATED
0002A	BASIC CONTRACT YEAR (1st year) (Estimated at \$3,000,000 + fixed handling fee)	\$ [REDACTED]
0002B	OPTION I (2nd Year) (Estimated at \$3,000,000 + _____ % fixed handling fee)	\$ [REDACTED]
0002C	OPTION II (3rd Year) (Estimated at \$3,000,000 + _____ % fixed handling fee)	\$ [REDACTED]

0002D OPTION III (4th Year)
(Estimated at \$3,000,000 + _____ %
fixed handling fee)

0002E OPTION IV (5th Year)
(Estimated at \$3,000,000 + _____ %
fixed handling fee)

NOTE: Handling fees on Other Direct Costs will be paid to only one contractor, the prime, at the rates identified in CLINs 0002A - 0002E above.

0003 Subcontracts
(See "Subcontracts" definition at FL2)

ESTIMATED

0003A BASIC CONTRACT YEAR (1st Year)
(Estimated at \$1,000,000 + _____ %
fixed administration fee)*

0003B OPTION I (2nd Year)
(Estimated at \$1,000,000 + _____ %
fixed administration fee)*

0003C OPTION II (3rd Year)
(Estimated at \$1,000,000 + _____ %
fixed administration fee)*

0003D OPTION III (4th Year)
(Estimated at \$1,000,000 + _____ %
fixed administration fee)*

0003E OPTION IV (5th Year)
(Estimated at \$1,000,000 + _____ %
fixed administration fee)*

*Not applicable to teaming contracts

SECTION B (continued)

B.1(h) BILLINGS

(1) DIRECT LABOR shall be billed at actual direct cost. Direct Labor rates shall not exceed the maximum as set forth below:

Contract Manager
Technical Manager
Elect/Electronics Engineer
Software Engineer
General Engineer
Meteorologist
Network Administrator
Data Base Administrator
Computer Systems Analyst
Computer Programmer

@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour

Computer Support Spec
Engineering Technician
Electronics Technician
Draftsman
Technical Editor
Technical Writer
Administrative Analyst
Word Processor Spec
Secretary
Program Analyst

@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour
@ _____ Per Hour

NOTES:

- (A) Annual adjustments (precipitated by exercise of option) to the proposed maximum direct labor rates will correspond to the annual cost-of-living allowance (COLA) for federal employees in this locale.
(B) Any proposed maximum direct labor rate cited becomes inoperable on the occasion of it being less than that required by the Service Contract Act of 1965 with the incorporation of the respective wage decision upon the annual contract option renewal.
(C) The FAA reserves the right to approve, on a case by case basis, a higher maximum direct labor rate than the established maximum (i.e., not-to-exceed) when it can be determined necessary in order for the contractor to acquire personnel with the requisite skills for contract performance.

(2) GENERAL AND ADMINISTRATIVE (G&A) EXPENSE shall be applied to direct labor and labor overhead and billed at the following provisional rates:

0001A BASIC CONTRACT YEAR (1st Year)

- (A) Staffing Level "A"
(B) Staffing Level "B"
(C) Staffing Level "C"
(D) Staffing Level "D"
(E) Staffing Level "E"

0001B OPTION I (2nd Year)

- (A) Staffing Level "A"
(B) Staffing Level "B"
(C) Staffing Level "C"
(D) Staffing Level "D"
(E) Staffing Level "E"

0001C OPTION II (3rd Year)

- (A) Staffing Level "A"
(B) Staffing Level "B"

@ _____
@ _____
@ _____
@ _____
@ _____

@ _____
@ _____
@ _____
@ _____
@ _____

@ _____
@ _____

- (C) Staffing Level "C"
- (D) Staffing Level "D"
- (E) Staffing Level "E"

0001D OPTION III (4th Year)

- (A) Staffing Level "A"
- (B) Staffing Level "B"
- (C) Staffing Level "C"
- (D) Staffing Level "D"
- (E) Staffing Level "E"

0001E OPTION IV (5th Year)

- (A) Staffing Level "A"
- (B) Staffing Level "B"
- (C) Staffing Level "C"
- (D) Staffing Level "D"
- (E) Staffing Level "E"

SECTION B (continued)

B.2 PROPOSED MAXIMUM FEE AMOUNTS

(n) The contractor's proposed maximum fee amounts based on CLIN 0001 proposed prices set forth at B.1(a) are as follows:

MAXIMUM FEE AMOUNT

0001A BASIC CONTRACT YEAR (1st Year)

- (1) Staffing Level "A"
- (2) Staffing Level "B"
- (3) Staffing Level "C"
- (4) Staffing Level "D"
- (5) Staffing Level "E"

\$
\$
\$
\$
\$

0001B OPTION I (2nd Year)

- (1) Staffing Level "A"
- (2) Staffing Level "B"
- (3) Staffing Level "C"
- (4) Staffing Level "D"
- (5) Staffing Level "E"

\$
\$
\$
\$
\$

0001C OPTION II (3rd Year)

- (1) Staffing Level "A"
- (2) Staffing Level "B"
- (3) Staffing Level "C"
- (4) Staffing Level "D"
- (5) Staffing Level "E"

\$
\$
\$
\$
\$

0001D OPTION III (4th Year)

- (1) Staffing Level "A"
- (2) Staffing Level "B"
- (3) Staffing Level "C"
- (4) Staffing Level "D"
- (5) Staffing Level "E"

\$
\$
\$
\$
\$

0001E OPTION IV (5th Year)

- (1) Staffing Level "A"
- (2) Staffing Level "B"
- (3) Staffing Level "C"
- (4) Staffing Level "D"
- (5) Staffing Level "E"

\$
\$
\$
\$
\$

(b) The contractor's proposed maximum fee amounts set forth above, which may subsequently be prorated in accordance with B.3 herein, will be allocated based on a split of 30 % for base fee and 70 % for award fee

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

PERFORMANCE WORK STATEMENT

MARCH 18, 2002
Revised Nov. 11, 2002

**ENGINEERING
AND
TECHNICAL SUPPORT**

NATIONAL AIRWAY SYSTEMS
ENGINEERING DIVISION
AOS-200

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SECTION 1 - GENERAL

1.1 GENERAL INFORMATION:

The National Airway Systems Engineering Division (NASED), AOS-200, provides engineering support to the Federal Aviation Administration (FAA) National Airspace System (NAS). AOS-200 supports a broad range of systems, consisting of thousands of individual pieces of equipment in the Facilities, Surveillance, Navigational Aids, and Weather Systems. In support of NAS systems and equipment, AOS-200 provides configuration management, hardware and software documentation, modifications, direct field support, systems support, and acquisition support.

1.2 SCOPE OF WORK:

1.2.1 This statement of requirements and conditions sets forth the requirements for Engineering Services and Support. The work to be performed is in support of civilian and military aircraft guidance and surveillance equipment and systems.

1.2.2 To accomplish the work effort specified in this Performance Work Statement (PWS) the contractor shall provide a wide variety of engineering, technical and administrative support personnel. The contractor shall perform the services identified in this PWS in support of the NAS with minimal assistance from AOS-200 personnel.

1.3 APPLICABLE DOCUMENTS:

The listed documents are references to be used as required when performing services under this Performance Work Statement (PWS). Additional documents may be identified in the individual project assignments. Latest revision of documents will be used.

- a. Users Guide - Maintenance Technical Documentation System, for National Airspace System (NAS) Facilities and Equipment.
- b. Order 1320.1D - FAA Directives System.
- c. FAA - iCMM - Integrated Capability Model for the Acquisition of Software Intensive Systems.
- d. Specification FAA-G-2100 - Electronic Equipment, General Requirements.
- e. FAA-STD-010C - Graphic Symbols for Digital Logic Diagrams.
- f. FAA-STD-013D - Quality Control Program Requirements.
- g. FAA-STD-018a - Computer Software Quality Program Requirements.
- h. FAA-D-2494b - Technical Instruction Book Manuscript: Electronic, Electrical, and Mechanical Equipment Requirements for Preparation of Manuscript and Production of Books.
- i. FAA Order 3900.49 - Control of Hazardous Energy During Maintenance, Servicing and Repair.
- j. Order 1100.157 - National Engineering Field Support Division Maintenance Program Procedures.

- k. FAA Order 1320.5B - Equipment and Facility Directives; Modification and Maintenance Technical Handbooks.
- l. Applicable manufacturer's instruction material.
- m. AOS-200 Division Operating Procedures.

1.4 PERFORMANCE WORK STATEMENT (PWS) REQUIREMENTS:

1.4.1 General Requirements:

1.4.1.1 The Contractor shall provide the necessary resources, personnel, facilities, material, equipment, and services to meet the requirements of this PWS. Each project assignment will define the scope, level of support, and deliverables required.

1.4.1.2 The various task projects shall include but not be limited to the following:

- a. Perform engineering studies related to modification, design, monitoring, remote control, interfacing, and other requirements on National Airspace System (NAS) equipment. Deliverables may include an engineering report and cost estimate package for design, procurement, installation, testing, and evaluation of prototype systems.
- b. Provide the technical expertise, materials, fabrication effort, and equipment to design, install, test, and evaluate prototype modifications of NAS equipment.
- c. Provide hardware and software documentation, drawings, specifications, and cost estimates to implement proposed changes to NAS equipment on a national level.
- d. Working from comments and material provided, develop changes to equipment instruction books and system maintenance handbooks. Camera-ready page masters of revised books are required as an end product.
- e. Provide technical support and management of the AOS-200 Program Support Facilities (PSF), System Support Facility (FSF), and other test bed facilities as required.
- f. Provide for the management, operation, and support of the AOS-200 Local Area Network (LAN), computer workstations, and peripheral computer equipment.
- g. Provide for management and operation of the AOS-200 technical data library and software library including software configuration control and records.
- h. Provide for management and control of the AOS-200 Test Equipment and EPROM Laboratory.
- i. Provide support for technical drafting and illustrating, editing, word processing, property management, telecommunications, data base management, and other administrative support.
- j. Provide first level engineering support to field organizations through telephone assistance or onsite assistance.
- k. Provide for engineering, equipment installation, and other maintenance related support for Headquarters National Airway System (HQNAS) programs and projects requiring AOS-200 support.

I. Provide technical and administrative support for new systems acquisitions by writing Shakedown Test Plans, operation and maintenance procedures, and participating in systems level integration, validation, certification of equipment and other acquisition support as required.

1.4.1.3 Work efforts shall involve an extensive interchange of information and ideas between the Contractor and the FAA. After project assignment, the Contractor assumes all responsibility for supervision and accomplishment of the contractor assigned projects.

1.4.1.4 The Contractor shall maintain individual project files consisting of background information, design notes, and other material for assigned projects. Project numbers shall be assigned by the FAA.

1.4.1.5 All case files, program files, drawings, software, programs, diskettes, design data, artwork, etc., developed by the Contractor under this PWS, become the property of the Government. These items shall be delivered with the final product.

1.4.2 Documentation Requirement:

All documents submitted to the FAA, related to project accomplishment, must be developed on electronic media. It shall be compatible with the requisite version Microsoft Word, Excel, Auto Cad, or other software as required by AOS-200. If requested, the submittal shall be delivered to the FAA on electronic media or hard copy or both. This requirement may include management reports, progress reports, ad-hoc reports, technical drawings, vouchers and other accounting documents as determined by AOS-200.

1.4.3 Government Access to Contractor Facility:

For contract monitoring, Government personnel shall be allowed unannounced access to the Contractor's facilities during normal working hours.

1.4.4 Contractor Access to Government Agencies:

When working on AOS-200 assigned projects, contract personnel shall obtain permission from AOS-200 before visiting other Government agencies or facilities.

1.4.5 Contractor Access and Operation of FAA Facility Equipment:

AOS-200 shall coordinate Contractor access to FAA facilities. Designated FAA site personnel have the authority to grant access, and operate the site equipment. The Contractor proposed test requirements shall be provided at the time the request for test is made. Use of FAA equipment may be outside normal duty hours.

1.4.6 Work Scheduling, travel, and overtime:

1.4.6.1 Contract personnel may be required to work outside the normal day shift (8:00 AM to 4:30 PM). When overtime work is required, it must be approved in advance by the requiring organization. Flexible work schedules comparable to government schedules may be used when approved by the requiring organization. Extensive contract employee travel may be required. Actual cost lodging must be approved in advance by the requiring organization.

1.4.6.2 When government employees are granted administrative leave as a result of inclement weather, potentially hazardous conditions, explosions, presidential leave and other special circumstances, non-essential contractor employees shall be excused the same time. This excused leave time shall be considered as a direct cost to the contract.

1.4.7 Tasks, Subtasks, and Projects:

1.4.7.1 A "Task" description will be general in description and broad in scope. A separate contract delivery order will be initiated for each task effort. A typical task description will cover the support for one or more NAS systems. Within the task description, a subtask(s) may be initiated for each major system support effort. As an example, A task will be written for Surveillance Support. Subtasks to support this task may include Enroute Radar Support, Terminal Radar Support, Beacon Radar Support, etc. As a minimum the Task Description will include: Background, Scope, Deliverables, and Milestones. Each Task Description will be signed by the Branch Manager and Contract Technical Officer TO/COTR before submission to the CO.

1.4.7.2 Some Task efforts may be very extensive and require the work be broken into Subtasks. Typically the Subtask format will include: Background, Scope, Milestones, Deliverables, GFP/GFE, Special Terms and Conditions, Quality Control / Quality Assurance, Inspection and Acceptance, and Technical Documents. Each Subtask will be signed by the Branch Manager and TO/COTR before submission to the CO.

1.4.7.3 All requests to establish new projects with the contractor shall be submitted by or through the AOS-200 Branch Manager to the COTR by email or memo. The COTR will ensure the work is within the scope of this PWS, and forward the approved work request to the contract management. The contract management will assign projects to their employees and notify the requiring office to which employee the work is assigned. All deliverables completed by the contract employees will be submitted to their contract management for review and acceptance. The contract management will forward approved deliverables to the requiring organization.

1.4.7.4 Each project or project phase shall be planned for completion by the Contractor under the following procedures:

- a. The Contractor shall advise when he is ready to start projects or project phases.
- b. An orientation meeting will be scheduled as required.
- c. The Contractor shall be provided the project background information.
- d. Technical documentation (instruction books, handbooks, etc.) will be identified, and provided for access in the AOS-200 technical library if available.
- e. The Contractor shall be advised of required scheduling, reporting, and deliverables.

1.4.8 Subcontracting:

The Contractor shall not enter into subcontract agreements without approval of the Contracting Officer. All subcontracts shall include the identity of the subcontractor, the extent of the work, the reason for subcontracting, and the extent of competition in selection of the subcontractor.

1.4.9 Voucher Requirements:

1.4.9.1 The Contractor shall certify that all direct charges are required in support of the contract. A copy of the receipt for all purchases shall be attached in support of voucher verification. The FAA subtask or project assignment number shall be recorded on the receipts attached to the vouchers. Vouchers will be submitted on a bi-weekly basis.

1.4.9.2 The Government shall not be obligated to reimburse the Contractor for any cost incurred before the approval to begin work on a task, subtask or project was given by the requiring government organization (AOS-200).

1.4.10. Training:

1.4.10.1 Section 3.3 (POSITION REQUIREMENTS AND QUALIFICATIONS), of this PWS specifies the level of education, training, and experience necessary to perform the work assigned to the contractor under this PWS. These requirements are established as guidelines to be used in the selection of employees. The contractor shall provide employees that meet these requirements at the time of employment.

1.4.10.2 Contract employees will be required to attend the requisite in service training necessary to deliver the services identified in SECTION 2 – AREAS OF EFFORT, of this PWS. Employees must become proficient on baseline and upgrades to NAS systems and equipment, support documentation, and work processes. Proficiency training will be required for non-technical as well as the technical support positions defined in this PWS.

1.4.10.3 When approved by the FAA, contract employees may or shall (depending on the type of training) attend Agency sponsored training considered beneficial to the Agency. Typically this would include sexual harassment, violence in the workplace, race relations, CPR, etc.

1.4.10.4 All requests for contractor proficiency training will be in writing. Processing of requests for this training will be accomplished by following the AOS-200 Division Operating Procedures pertaining to contractor training.

SECTION 2 - AREAS OF EFFORT

2.1 MODIFICATION SUPPORT REQUIREMENTS:

2.1.1 General Information:

AOS-200 is responsible for in-service improvements and modifications of assigned NAS systems. These responsibilities are accomplished by development and implementation of Electronic Equipment Modifications (EEM) to assigned facilities, surveillance, NavAids, and weather systems. Similarly, Plant Equipment Modifications (PEM) are developed and implemented for Engine Generators, Visual Navigational Aids and Environmental Systems. The Contractor will be assigned EEM/PEM projects encompassing the full range of modification support. Typical projects range from a feasibility study of the proposed modification through prototype development, testing, and preparation of documentation.

2.1.2 Project Definition:

Modification projects typically involve:

- a. Engineering Study (ES), with Prototype Development and Testing.
- b. Production Package Development.

2.1.3 Engineering Study Phase:

This phase requires a completed engineering study report with prototype development. Typical events involved in this phase are:

- a. Review and evaluate the technical material provided with the FAA assigned and approved engineering project.
- b. Review the reported problem or requirement with the appropriate FAA representative.
- c. Request for contact with the appropriate field installations to discuss or evaluate the reported problem or requirement.
- d. Visit facilities as approved by the FAA.
- e. Develop a solution to the problem.
- f. Conduct laboratory or simulated testing of a breadboard design that demonstrates the feasibility of the solution.
- g. Prepare an Engineering Study Report (ESR) which clearly defines the problem or requirement, the alternatives considered, and proposes a solution or course of action.
- h. Submit the Engineering Study Report for review. If rejected by the FAA, it is returned for additional study. If accepted by the FAA, guidance shall be provided for further contract action.
- i. Fabricate a complete modification kit, working from the FAA approved design.
- j. Arrange through an AOS-200 representative for the location(s) to make the prototype installation and test. This request should be made a minimum of 30 days in advance of the required testing.

k. Develop a draft of paragraphs 7, 9, 14 and 15 of the EEM/PEM (materials, special tools and test equipment, modification procedures and test after modification) per FAA Order 1320.58B.

l. Install and test the modification, submit a report on test results and findings, make design corrections if necessary.

m. Prepare general cost estimate for nationwide implementation.

n. Complete the draft modification in accordance with Order 1320.58B. Include all the required paragraphs and draft instruction book changes to incorporate the modification.

o. The FAA will formally accept or reject the test report and draft EEM/PEM. If rejected, the additional work required shall be identified in general terms.

2.1.4 Production Package Development Phase:

This phase of a project normally results in two documents. A Purchase Description for acquisition of materials, and the final EEM/PEM documentation. Both shall be submitted to AOS-200 by the Contractor.

a. The Purchase Description consists of drawings, specifications, and parts list. Final cost estimates shall be attached. The Purchase Description shall allow for competitive acquisition action. Specification FAA-G-2100 shall be used as a guide in specifying kit parts.

b. The EEM/PEM shall be delivered in camera-ready form and in accordance with Order 1320.58B. Modification projects involving instruction book changes require the format of the existing book to be maintained. The type and artwork of the changed pages must match that of the original pages or masters.

2.2 DOCUMENTATION SUPPORT REQUIREMENTS:

2.2.1 General Information:

2.2.1.1 AOS-200 has the responsibility for development and changes to documentation related to NAS equipment utilized by the FAA. This documentation is primarily maintenance oriented in the form of Maintenance Technical Handbooks (general equipment or system specifications) and Technical Instruction Books (equipment functional testing and troubleshooting). Responsibility for Commercial Off the Shelf (COTS) documentation is included.

2.2.1.2 The contractor shall develop and maintain technical documents as appropriate to support assigned work effort. The documentation is primarily maintenance oriented for both hardware and software maintenance. These documents shall meet AOS-200 requirements for format and content.

2.2.2 Project Definition:

2.2.2.1 Typically documentation projects will consist of one or more of the following:

- a. Development of System Shakedown Test Plans.
- b. Development of Maintenance Technical Handbooks, revisions, and page changes.
- c. Develop of Instruction Books, revisions, and page changes.
- d. Participate in development and review of hardware and software documentation.

- e. Prepare Site Program Bulletins (SPBs).
- f. Provide other documentation support as required.

2.2.2.2 To accomplish the work, the Contractor shall undertake efforts typified by, but not limited to the following:

- a. Submit documentation suitable for inclusion into existing FAA technical manuals, orders, and other applicable hardware and software documentation.
- b. Prepare new maintenance documentation.
- d. Conduct an analysis of and incorporate FAA review comments.
- e. Provide management review and approval packages for technical documentation projects. These packages typically consist of a clearance record (FAA Form 1300-2) and copies; original copy of a transmittal document (Order Notice or Change); and camera-ready copy of Notice, New Orders, Revised Orders, instruction book page changes, or handbook page changes.

2.3 SOFTWARE AND HARDWARE ENGINEERING SUPPORT REQUIREMENTS:

2.3.1 General Information:

2.3.1.1 The FAA is actively involved in acquiring and fielding new facilities, systems, and equipment throughout the NAS. AOS-200 is called on to provide a wide range of technical and acquisition support for these major program efforts, to transition these systems and equipment from the research and development arena into the operational environment. Software and Hardware Engineering support is also needed to maintain existing facilities and equipment.

2.3.1.2 Software support requirements are primarily involved with embedded software on active NAS systems and equipment as well as AOS-200 test bed facilities and equipment. Engineering projects typically are software maintenance oriented and include software development and software changes. Software support is also required for development and maintenance of databases at the national and local level. The AOS-200 contract work force shall be required to support AOS-200 in the software and hardware engineering activities required to maintain the NAS facilities, and AOS-200 test bed facilities.

2.3.2 Project Definition:

2.3.2.1 The contractor shall provide the personnel required for software engineering and database management support. Typical duties are listed but not limited to the following:

- a. Develop operators, programmers, operations and maintenance, software user's, and computer system diagnostic manuals where equivalent FAA or commercially developed documents are unavailable.
- b. Operate and generate software programs for the various automated systems. Permanent or temporary additions, deletions, and changes to the equipment configuration will periodically occur. It shall be the responsibility of FAA designated personnel to re-certify the facility configuration when changes occur.
- c. Maintain an inventory for software program masters, operational firmware, documentation, and developmental system software for assigned hardware and software. A listing of each program by version, revision level, and other information will be developed.

d. Research and design hardware and software systems or enhancements to existing systems or networks.

e. Provide support for hardware, firmware, and software acquisition, development, distribution, and installation.

f. Develop and execute detailed plans, schedules, and related activities to test, debug, and validate subroutine, module, and software system.

g. Provide engineering review of software and hardware design data, to ensure it meets the criteria established in the documents listed in SECTION 1.3, APPLICABLE DOCUMENTS, of this PWS.

h. Perform analysis, design, programming, and testing in support of proposed acquisitions of operational and support software. The integrity of the original design implementation, program function, and maintainability shall be protected.

i. For operational programs, develop and maintain technical documentation. This documentation shall describe software functions, maintenance requirements, and maintenance techniques.

j. Insure that hardware and software changes are performed in a thorough and complete manner to enhance future maintainability.

k. Insure that all system software and hardware continues to meet NAS facility operational and functional standards as modifications and retrofits are developed or installed.

l. Develop or review Contract Data Requirements Lists (CDRL) and other contractual documentation.

m. Participate in Preliminary Design Reviews (PDR), Critical Design Reviews (CDR), Physical Configuration Audits (PCA), and Functional Configuration Audits (FCA).

n. Provide for Quality Assurance support by performing activities defined by the division and branch quality assurance policy and procedures.

o. Participate in meetings and conferences as required in the acquisition and life cycle process, and provide responses to action items as needed.

p. Develop database programs for purpose of tracking AOS-200 engineering, modifications, maintenance, time utilization, and budget activities.

q. Provide support responsibilities for AOS-200 in operation and management of local and national level databases.

r. Provide database training, data entry assistance, and reports when required.

s. Provide other software and hardware engineering support as defined by individual project efforts within the scope of this PWS.

2.4 SOFTWARE MAINTENANCE FACILITY (SMF) REQUIREMENTS:

2.4.1 General Information:

The SMF is a computer installation consisting of hardware, and software to satisfy software development, integration, test, and configuration management. For purposes of this PWS the SMF includes duties

associated with the operation and maintenance of AOS-200 test bed facilities, Local Area Network (LAN), Automated Data Processing (ADP) and peripheral equipment.

2.4.2 Project Definition:

Typical project efforts are listed but not limited to the following:

- a. Develop periodic maintenance schedules and take corrective maintenance actions for AOS-200 LAN, computer systems and peripherals, and test bed equipment. Minimal troubleshooting shall be performed by SMF support personnel. Major hardware maintenance will be performed through established FAA maintenance contracts. Minor repairs may be accomplished by SMF contract personnel.
- b. Become familiar with and be capable of operating test bed systems, LAN, ADP, and peripheral equipment for the purposes of maintenance actions, modifications installation, testing, and training.
- c. Provide limited level of troubleshooting and repair to maintain equipment in an operational mode on both hardware and software.
- d. Develop and provide equipment familiarization training as a result of hardware and software modifications and enhancements.
- e. Maintain an inventory for software program masters, operational firmware, documentation, and developmental system software for assigned hardware and software. A listing of each program by version, revision level, and other information will be developed.
- f. Provide for hardware and software enhancements and upgrades for the LAN, ADP, and testbed equipment.
- g. Prepare documentation in support of updates or changes to software and hardware.
- h. Perform system backups and data recovery.
- i. Provide systems security, and the development of procedures for use and maintenance of files and libraries for existing systems: Local Area Network (LAN), Tandem MPS, AT&T workstations, IBM PC's and compatibles, Harris and Sun workstations, peripherals of all of the above, and new systems coming into the inventory.
- j. Provide support for installation and relocation of automated equipment.

2.5 DIRECT FIELD SUPPORT REQUIREMENTS:

2.5.1 General Information:

AOS-200 has the responsibility to provide technical consultation and assistance to the field technicians and engineers when required to restore out of service facilities back to operational status. Requests for on-site assistance can be required on a routine basis or on short notice (emergency) basis anytime within a 24 hour day.

2.5.2 Skill Requisites:

Field support type of work requires an extraordinary high level of system and equipment experience and expertise. Request for assistance from the field occurs only after on-site technicians have not been able to restore a facility back to service. AOS-200 and the contractor must be in agreement on which contract employees are qualified to participate in field support duties.

2.5.3 Project Definition:

When contract employees are called upon for direct field support assistance, they shall follow the same procedures as government employees performing the same service. Maintenance support shall be provided through telephone assistance and on-site assistance when needed. Contract employees shall provide the required documentation for tracking requests for assistance, and entry of data into the AOS-200 data base.

2.6 DIVISION SUPPORT REQUIREMENTS:

2.6.1 General information:

AOS-200 provides a highly skilled government and contract technical work force to meet the engineering, technical, and documentation services required to maintain and upgrade NAS facilities and equipment. Other support functions are required to support and complement the AOS-200 government and contract technical work force in meeting the requirements of their assigned duties. The contractor shall provide the personnel to perform the support requirements listed below.

2.6.2 Areas of Support:

2.6.2.1 Engineering Test Equipment and EPROM Laboratory. The Contractor shall manage, maintain and operate the AOS-200 Engineering and EPROM Laboratory. The labs will be staffed during normal duty hours. Essentially the labs will be kept clean, tools and test equipment kept in readiness, inventories and calibration records kept up to date, and provide technical support as required.

2.6.2.2 Technical Drafting. The Contractor shall be responsible for providing Technical Drafting/Illustration Support. Typically this will include: creating and updating fabrication drawings, figures, illustrations, and schematics by automated and manual methods; conversion of existing paper copy drawings into digitized drawings; develop and maintain proficiency on automated drafting systems and techniques.

2.6.2.3 Technical Documentation Center. The Contractor will operate and maintain the AOS-200 technical library. The library will be staffed during normal duty hours. The library and print masters area will be kept clean and orderly, with documents properly shelved, filed, and kept current. All changes to documents will be posted in a timely manner. The technical librarian will be available to provide assistance as required.

2.6.2.4 Technical Editing/Writing. The Contractor shall be responsible for providing Technical Editing, Technical Writing, Word Processing, and Scanning support. Documents typically include maintenance handbooks, technical instruction books, site bulletins, modification directives, and orders. Delivered products will be consistent in format, grammar, and style as required by FAA and AOS-200 documentation directives, national orders, and standards. Support will include all aspects of the documentation process from initial draft of documents through editing, and preparation and distribution of print packages.

2.6.2.5 Administrative Support. The Contractor shall be responsible for providing administrative support as needed in various locations at the division and branch level. Position title(s) for these general support positions are found in Section 3 of this PWS. Position descriptions will be prepared for these positions. Personnel will perform the duties related to:

- a. Telephone communications, space management, and property inventory management.
- b. Ordering, tracking, receiving and shipping of supplies and equipment.
- c. Personnel and training related activities.

- d. Acquisition and budget related activities.
- e. Database and records management to include data entry, updating, tracking, problem resolution, and preparation of reports.
- f. Quality Assurance and Configuration Management
- g. Secretarial support.
- h. Other administrative support as required.

SECTION 3 - PERSONNEL REQUIREMENTS

3.1 GENERAL REQUIREMENTS:

3.1.1 The Contractor shall be responsible for employing qualified personnel to perform the duties defined in this PWS. The Contractor must have the personnel, organization, and administrative control necessary to ensure that each project is completed satisfactorily. If questions arise that the Contractor is using other than qualified personnel, the Contractor shall provide proof that personnel do possess proper qualifications and experience.

3.1.2, After award of contract, the Contractor shall submit a resume for each person to be assigned to this contract. The requiring government organization will review resumes for purposes of determining that applicants meet the requisite qualifications of paragraph 3.3 POSITION REQUIREMENTS AND QUALIFICATIONS of the PWS. Exceptions for submission may be made in the case of incumbent employees for which a resume has been provided and on file with the requiring organization.

3.1.3. Exceptions or waiver to requisite journeyman level qualifications are covered under Section 3.3 of this PWS. AOS-200 shall review resumes and notify the Contractor of their determination of waiver based on the qualifications of the applicant.

3.1.4 The number and type of personnel positions may be amended due to normal employee attrition or a change in AOS-200 assigned workload. The Contractor shall submit resumes to the FAA for review of qualifications prior to filling vacant positions.

3.2 CONTRACT MANAGER GENERAL REQUIREMENTS:

3.2.1 The Contractor shall designate a Contract Manager for the contract. The Manager shall be responsible for the management and coordination of the contract. The Contract Manager shall act as the central point of contact with the Government. The Manager shall have the authority to represent and commit the Contractor in dealing with the Government.

3.2.2 The Contract Manager shall be physically located at an established Oklahoma City contract facility or an on-site MMAC facility. The manager may work an alternate work schedule with approval from the FAA

3.2.3 Should the Contract Manager be temporarily absent, an individual shall be designated in writing to act as alternate. The CO and COTR shall be notified of the name of the individual to act as alternate.

3.3 POSITION REQUIREMENTS AND QUALIFICATIONS:

Requisite qualifications for each contract position have been developed to reflect the level of education, training, and experience necessary to perform the projects assigned under this PWS. These requirements are established as guidelines to be used in the selection of employees.

3.3.1 Contract/Technical Manager:

3.3.1.1 A Bachelor of Science degree in Electrical or Electronic Engineering is required. Degrees in other technical or science fields may be substituted depending on other qualifications and specialized experience.

3.3.1.2 At least ten years of experience in providing hardware and software support of electronic systems is required. This experience must include: direct responsibility for providing systems level requirements definition; product design, development and installation; development of and modifications to hardware

and software documentation; quality assurance and quality control programs and procedures. Hardware and software experience on NAS related systems and equipment is highly desirable. Experience in management of engineering groups is desired for the technical manager, and the contract manager positions.

3.3.1.3 Knowledge of government procurement and contracting rules and regulations is required for the contract manager position, and desirable for the technical manager. Conceptual knowledge of the NAS systems and equipment is required for the technical manager, and is desirable for the contract manager position.

3.3.2 Software Engineer:

3.3.2.1 A Bachelor of Science degree in electronics or electrical engineering is required. Same degree with a computer option or a minor in computer science is desirable. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.2.2 A minimum of five years experience in providing software engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Experience in software development and modifications, circuit analysis, and technical writing skills are required. Requisite experience on NAS systems and equipment is highly desirable.

3.3.2.3 Knowledge of engineering practices and procedures is required. Specialized knowledge of NAS systems and equipment is required. Knowledge of computer hardware, systems software, and computer systems architecture and integration, are required. Highly developed software programming skills in NAS applications software such as 'C', UNIX, Assembly, ADA, and FORTRAN are required.

3.3.3 Electronic Engineer.

3.3.3.1 A Bachelor of Science degree in electronics or electrical engineering is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.3.2 At least five years of experience in providing electronics engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Specialized engineering experience on NAS systems and equipment is highly desirable. Experience in analyzing and testing electronic system performance, and in producing engineering prototypes, studies, and technical documents is required.

3.3.3.3 Knowledge of engineering practices and procedures is required. Specialized knowledge of NAS systems and equipment is required. Knowledge of computer hardware, systems software, and computer systems architecture and integration, are required. Highly developed software programming skills in NAS applications software such as 'C', UNIX, Assembly, ADA, are highly desirable.

3.3.4 General Engineer.

3.3.4.1 A Bachelor of Science degree in mechanical or civil engineering is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.4.2 At least five years of experience in providing general engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Specialized engineering experience on NAS systems and equipment is highly desirable. Experience in analyzing and testing facility system performance, and in producing engineering prototypes, studies, and technical documents is required.

3.3.4.3 Knowledge of engineering practices and procedures is required. Specialized knowledge of requisite NAS systems, software and equipment is required.

3.3.5 Meteorologist:

3.3.5.1 A Bachelor of Science degree in meteorology or applied sciences, or a related discipline in the earth or physical sciences, is required.

3.3.5.2 At least five years experience providing radar meteorological services is required. Specialized experience in Doppler weather radar meteorological applications, in evaluating Doppler weather radar products, and in producing analytic reports is required. Experience in computer systems analysis, design, and programming is required.

3.3.5.3 Knowledge of procedures involved with weather radar equipment and systems, shakedown testing, performance testing, certification, and validation are required.

3.3.6 Computer Analyst/Programmer.

3.3.6.1 A Bachelor of Science degree in Computer Science is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.6.2 At least three years experience in providing computer programmer/analyst services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Experience in producing and maintaining software and firmware programs and documentation is required.

3.3.6.3 Knowledge of software programming, development, review, audit, testing, configuration management, requirements, and changes is required. Highly developed programming skills using 'C'/'C'+, UNIX, Assembly, ADA, FORTRAN, and other NAS required software is required.

3.3.7 Network Administrator.

3.3.7.1 A Bachelor of Science degree in Computer Science is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.7.2 At least three years of experience in developing, revising, testing, and maintaining hardware, software, and associated documentation applied to Local Area Network (LAN) support is required. Assistance in developing of training materials for network users is required.

3.3.7.3 Knowledge of LAN and E-MAIL software programming, development, review, audit, testing, configuration management requirements, and changes is required. Highly developed programming skills using Netware, Zenworks, and other applications software tools is required.

3.3.8. Data Base Administrator.

3.3.8.1 A Bachelor of Science degree in Computer Science is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.8.2 At least three years experience in developing, revising, testing, and applying code to data base applications is required. Assistance in development of training materials and training of data base users may be required.

3.3.8.3 Knowledge of software programming, development, review, audit, testing, configuration management, requirements, and changes is required. Highly developed programming skills using Oracle, Solaris Operating System, Power Builder, CCC Harvest, and other software as identified is also required.

3.3.9 Computer Support Specialist.

3.3.9.1 A Certificate of Training in a two year Computer Maintenance curriculum from either a community college or Vocational Education School is required. An equivalent Certificate of Training from the Military will be acceptable.

3.3.9.2 At least three years of experience in maintaining hardware and software applications as applied to Local Area Network (LAN) and peripheral equipment support is required. Assistance in development of training materials and training of network users is also required.

3.3.9.3 Knowledge of LAN and E-MAIL hardware and software is required. Proficiency in programming skills using Netware, Zenworks, and other LAN applications software tools is required.

3.3.10 Engineering/Electronic Technician.

3.3.10.1 An Associate Degree in Electronics Technology or completion of equivalent technical courses in the Military Service or the FAA Academy is required.

3.3.10.2 At least three years experience in an engineering support position or maintenance support position is required. Engineering technician experience includes working with engineers in prototype design development and testing. Electronic technician experience includes operating, installation, troubleshooting, and repair of electronic systems and equipment. Experience in writing and revising technical documentation for electronic and electro-mechanical systems and equipment is required.

3.3.10.3 Knowledge of maintenance and operation procedures of systems and equipment is required. Knowledge of data processors, software and firmware applications, and computer systems is desirable. Knowledge of NAS related systems and equipment is highly desirable. Tradeoffs between these requirements and other qualifications may be made after evaluation of applicants qualifications.

3.3.11 Technical Editor/Writer:

3.3.11.1 An Associate Degree in Communications is required. A Bachelor of Arts degree is desirable.

3.3.11.2 At least three years experience in writing and editing technical documentation is required. Experience in writing and editing technical documentation on NAS equipment is highly desirable.

3.3.11.3 Knowledge of the FAA modification and documentation process and the FAA directive system is required.

3.3.12 Technical Draftsman/Illustrator:

3.3.12.1 A two year Associate Degree in Technical Design and Drafting is required.

3.3.12.2 A minimum of three years experience in Computer Aided Design and drafting and manual preparation of engineering drawings and technical illustrations is required.

3.3.12.3 Knowledge in FAA drafting procedures and processes is required.

3.3.13 Administrative and Program Analyst:

3.3.13.1 A completion of two or more years of college courses in the specific area of work is desirable. As an example, an Associate in Accounting would be desirable in providing assistance to the AOS-200

fiscal team. Training in Word Processing and Spreadsheet Applications is required for all areas of Administrative/Program Analyst support.

3.3.13.2 A minimum of three years experience in respective areas of support is required. Typical areas of support include but not limited to: technical librarian, telecommunications support, physical space and property management, processing training and personnel actions, processing budget related activities, ordering and tracking of supplies and equipment, database and records management, and other administrative support duties as required.

3.3.13.3 Knowledge of FAA and AOS-200 administrative policies and procedures, and ability to use advanced word-processing and computerized spreadsheet applications is required. Knowledge of fiscal and budgeting processes is also required for program analyst position.

3.3.14 Word Processor:

3.3.14.1 A two year Associate Degree in Secretarial Sciences or Communications is desirable. Course completion in Microsoft Word or related word processing is required.

3.3.14.2 Three years experience in applying word processing software functions to prepare complex and detailed technical documents is required. Documents include tables, graphs, charts, and multiple columns. Word processing experience on NAS documentation is desirable.

3.3.14.3 Knowledge of word processing software applications and office practices needed to prepare complex technical documents from draft copy is required. Knowledge of NAS related Orders, Directives and administrative procedures is required.

3.3.15 Secretary:

3.3.15.1 A two year Associate Degree in Secretarial Sciences is desirable. Training in secretarial sciences, office administration, or related specialized training is required.

3.3.15.2 At least three years experience in providing secretarial services in an office environment is required. Skills should include maintenance of administrative and technical files, word processing, compose correspondence, prepare reports, maintain T&A records, schedule meetings, etc.

3.3.15.3 Knowledge of FAA administrative policies and procedures, and ability to use advanced word-processing and computerized spreadsheet applications is required.

3.3.16 Developmental Positions:

There may be cases where the Contractor finds it necessary to employ individuals that do not meet the full education and experience requirements. In those cases the Contractor may submit for FAA consideration a resume with justification and target position in advance of commitment. If approved, the incumbent to the target position shall be assigned to perform contract work under the appropriate developmental title. Upon meeting the required education and experience requirements the incumbent will be considered for appropriate grade level increases beyond the developmental level.

3.3.17 Waiver of requirements:

Some applicants may not meet the formal education requirements, but have demonstrated the ability to perform some or all of the work elements described in SECTION 2 - AREAS OF EFFORT in this PWS. These individuals have gained qualifying experience through previous work in the FAA Academy, field maintenance activities, and FAA engineering organizations. AOS-200 reserves the right to waive the formal education requirements for these individuals with qualifying experience.

3.4 CONTRACTOR STAFFING REQUIREMENTS:

3.4.1 General Information:

3.4.1.1 The staffing levels are incorporated into the contract primarily for proposal purposes. The staffing levels presented are best estimates for budgeting and workload projections. The contractor will be notified in writing of the authorized staffing level. Once notified of the staffing level, the contractor shall not unilaterally staff to a level maximum. The requiring organization will determine the number and type of position vacancies to be filled.

3.4.1.2 Contract funding and project initiation will not always begin and end on the requiring organizations budget year (FY), or the contract anniversary date. AOS-200 anticipates being either understaffed or over staffed on a particular position for periods of time without exceeding the total number of employees for the authorized staffing level in effect. For example staffing "Level B" may be authorized, but project requirements may dictate we have more engineering technicians than shown but less engineers and still remain within the "Level B" limit of 175 positions.

3.4.2 Staffing Levels:

The established position title and the estimated number for each position for all three levels of contract staffing are as shown:

POSITION TITLE	LEVEL A	LEVEL B	LEVEL C	LEVEL D	LEVEL E
Contract Manager	1	1	1	1	1
Technical Manager	3	4	5	6	7
Elect/Electronic Engineer	40	63	75	84	95
Software Engineer	10	20	30	40	50
General Engineer	2	3	4	5	5
Meteorologist	5	6	7	8	8
Network Administrator	1	1	1	1	1
Data Base Administrator	2	2	2	3	4
Computer Systems Analyst	8	9	10	12	14
Computer Programmer	9	11	15	20	25
Computer Support Specialist	2	3	4	5	6
Engineering Technician	7	10	18	25	33
Electronics Technician	6	8	12	18	22
Draftsman	2	2	3	3	4
Technical Editor	4	5	6	7	8
Technical Writer	3	3	4	5	5
Program Analyst	1	1	2	3	4
Administrative Analyst	14	16	17	18	20
Word Processor Spec.	2	3	4	5	6
Secretary	3	4	5	6	7
Total	125	175	225	275	325

SECTION 4 - FACILITIES, SUPPLIES AND EQUIPMENT

4.1 FACILITIES:

4.1.1 Contractor Furnished Facilities:

The Contractor may be required to establish an Oklahoma City office to accomplish some of the requirements of this PWS. If established this office shall be conveniently located near the Mike Monroney Aeronautical Center. The facilities shall be consistent with the quality of office space normally utilized by Government agencies.

4.1.2 Government Furnished Facilities:

To the extent space is available, Contract personnel will be located at the Mike Monroney Aeronautical Center. The following services will be provided when the Contractor is located at MMAC.

- a. Facilities. The Government shall provide working space and furnishings for contract personnel consistent with facilities provided to government employees in that work area. The Contractor shall share responsibility for physical security and safety, along with government personnel.
- b. Utilities. Contract employees will be provided the same utilities as those provided FAA employees while located at the MMAC. The Contractor shall use Government furnished utilities in a prudent manner.
- c. Telecommunications. The Government shall furnish telecommunication service to the work area for official use only.
- d. Janitorial Services. The Government shall provide the same janitorial service to the Contractor as provided for MMAC.

4.2 GENERAL SUPPLIES AND EQUIPMENT:

4.2.1 Contractor Provided Supplies and Equipment:

4.2.1.1. In the case of a Contractor Office not located at MMAC, the Contractor shall provide office supplies and materials required in an engineering design office. Items such as paper tape, printer paper, magnetic tape and diskettes, and related materials associated with deliverable software shall be furnished by the Contractor.

4.2.2 Government Provided Supplies and Equipment:

4.2.2.1. For contract personnel located at the Mike Monroney Aeronautical Center, the Government shall provide basic supplies and materials normally available to Government employees. Some supplies and materials may be purchased by the Contractor. The cost of these supplies and materials shall be reimbursed to the Contractor as a direct cost.

4.2.2.2 Certain assigned projects may require special supplies, tools, or equipment. The Government may choose to provide these items or authorize the Contractor to buy them.

4.2.2.3 Request by the Contractor for reimbursement of supplies and equipment, utilized in performance of this PWS, will be submitted through the standard voucher method.

4.2.2.4 The Contractor will be granted use of the AOS-200 Test Equipment Lab, EPROM Lab, Computer Room, and requisite Program Support Facilities to perform the technical support required under this PWS. Use of the AOS-200 support facilities and equipment must be coordinated with the requiring organization.

4.2.2.5 Contract personnel may utilize the AOS-200 Technical Documentation Center for access to technical reference materials.

4.3 GOVERNMENT FURNISHED EQUIPMENT (GFE):

It is the intent of AOS-200 to place all contract employees on site at MMAC, and no GFE will be required. In the event adequate on-site space is not available, some GFE may need to be provided to the contractor. The type and amount will be determined at that time. GFE property transactions between the contractor and the FAA will be recorded on FAA Form(s) 4650-12. The FAA will provide required forms. The contractor shall follow the provisions in the AMS for GFE records and reporting.

SECTION 5 - REPORTING

5.1 MASTER PROJECT LIST:

The Contractor shall establish and maintain a Master List of project assignments. Typically the list will include the project number, project title, project status, employee name, and estimated completion date for all projects assigned. This schedule shall be kept current. A hard copy or electronic copy will be made available to the CO/COTR upon request.

5.2. COST SUMMARY:

The Contractor shall provide a cost summary of expenditures on each contract employee per voucher period. Cost summary to include cost to date (labor cost, materials costs, and travel cost), and estimated cost to complete (labor, material, and travel) the contract year or AOS-200 budget year on a per employee basis. Cost summary to be provided in Microsoft Excel, or whatever spreadsheet software is in use by AOS-200 at the current reporting time. This report will be kept current and provided to the AOS-200 Budget Office.

5.3 TIME UTILIZATION REPORT (TUR):

AOS-200 accounts for labor hours expended for each engineering project established. All government employees are required to complete a TUR each pay period. These labor hours are electronically entered into the AOS-200 TUR Database. All contract employees are required to fulfill the same labor hour accounting into the TUR Database.

5.4 ADHOC REPORTS:

Status reports are an integral function of the work effort outlined in the PWS. The contractor will be required to prepare and/or assist in the preparation of reports on an as needed basis. Typically the types of reports will include but not be limited to: trip reports, budget and acquisition, training, requests for assistance (ROA), staffing, configuration management, project status reports, white papers, fiscal property, documentation, briefing papers, etc.

5.5 PROGRESS REVIEW:

On an as required basis, contract employees and management may be called on to provide progress reviews on project activities. Typical progress reviews will be an oral presentation to the branch manager or team lead. Contract management and employees may be asked to participate in more formal program reviews conducted by the division manager.

SECTION 6 - QUALITY

6.1 QUALITY CONTROL:

The Contractor is solely responsible for the quality products and services provided. The Contractor shall establish and maintain a quality control program for the furnishing of supplies and services. This program shall include a controlled plan of events integrating all necessary procedures, controls, inspections, and tests required to substantiate quality of service and product as stated in FAA-STD-013d, Quality Control Program Requirements. Any additional quality control processes or procedures if required will be identified in requisite task, sub-task, or engineering project requirements.